

## **REMARKS**

Claims 1-5, 21-42 and 49-50 are pending, and claims 6-20 and 43-48 have been withdrawn with traverse under a restriction requirement. Claims 32 and 36 are allowed. Claims 1, 21, 27, 33, 37-38 and 49-50 have been amended. In light of the following, all of the pending claims are in condition for allowance. If, after considering this response, the Examiner does not agree that all of the claims are allowable, then she is requested to schedule a teleconference with the Applicant's attorney to further prosecution of the application.

### **Rejection of claim 36 under 35 U.S.C. § 112, first paragraph**

The Examiner has mistakenly repeated this rejection from a previous office action. This rejection is repeated verbatim from the office action dated July 7, 2006. The Applicant already responded to this rejection in the response filed October 10, 2006. On page 9 of the office action dated January 30, 2007, the Examiner clearly stated that "after further consideration, claim 36 rejection under 112 first paragraph has been withdrawn." No changes to claim 36 have been made since then.

Furthermore, not only has the Examiner already allowed claim 36 in the office action dated January 30, 2007, but the Examiner has currently allowed claim 32, which similarly recites a first Viterbi detector operable to recover a sync mark, and a second Viterbi detector operable to recover the other servo data.

### **Rejection of claims 1-5, 21-23, 25-26, 37 and 49 under 35 U.S.C. § 102(e) as being anticipated by Christiansen et al. (US 6,369,969)**

#### **Claim 1**

Claim 1, as amended, recites a circuit operable to recover servo data from a servo signal generated by an electromagnetic read-write head that is coupled to the circuit with a fixed connection polarity, and a determinator operable to determine the connection polarity of the read-write head from the recovered servo data.

For example, referring, *e.g.*, to FIGS. 1 and 5-6 of the present application, an electromagnetic read-write head 14 reads servo data from a magnetic data-storage disk 12. The electromagnetic read-write head 14 is coupled to a servo circuit 60 with a fixed connection polarity (head connection reversed or not reversed), and a Viterbi detector 100 recovers a sync mark from the servo signal. A comparator 104 determines the connection polarity of the read-write head 14 from the recovered sync mark. It should be noted that, during the manufacture of the disk drive, the read-write head 14 may be reverse connected, or not reverse connected. This connection polarity of the read-write head 14 is fixed and cannot be adjusted. The comparator 104 determines the connection polarity of the read-write head 14, and a phase-compensation circuit 64 adjusts the phase of the servo signal if the head connection is reversed. Again, it is the servo signal that is adjusted, not the connection polarity of the read-write head.

Christiansen, on the other hand, does not disclose a circuit operable to recover servo data from a servo signal generated by an electromagnetic read-write head that is coupled to the circuit with a fixed connection polarity, and a determinator operable to determine the connection polarity of the read-write head from the recovered servo data. Instead, Christiansen discloses a data detector 30 that receives a polarity signal 28 that is indicative of a polarity of the bias layer within the MR read element within the MR head 20 (FIG. 2; col. 3, lines 1-9). When the polarity of the bias layer has deviated from the preferred polarity, the polarity of the bias layer itself is modified (col. 3, lines 9-11). In other words, the polarity of the bias layer is not fixed, and can be adjusted. Instead of the MR head having a fixed connection polarity and simply adjusting the servo signal as disclosed in the present application, Christiansen resorts to adjusting the polarity of the bias layer itself in the MR head by increasing the bias current applied to the bias layer (col. 5, lines 25-35). In fact, after reviewing Christiansen in its entirety, the Applicant's attorney is unable to find any mention of a read-write head having a fixed connection polarity, and compensating for a reverse connected read-write head without adjusting the polarity of the read-write head. Therefore, Christiansen does not satisfy all of the limitations of claim 1.

**Claims 21, 37 and 49**

Claims 21, 37 and 49 are patentable for reasons similar to those recited above in support of the patentability of claim 1.

**Claims 2-5, 22-23 and 25-26**

Claims 2-5, 22-23 and 25-26 are patentable by virtue of their respective dependencies from claims 1 and 21.

**Rejection of claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Christiansen in view of Reed et al. (US 6,052,248)**

Claim 24 is patentable by virtue of its dependency from claim 21.

**Rejection of claims 27-28, 30-31, 33, 35, 38-40 and 42 under 35 U.S.C. § 103(a) as being unpatentable over Christiansen in view of Tuttle et al. (US 5,796,535)**

**Claims 27, 33 and 38**

Claim 27, 33 and 38 are patentable for reasons similar to those recited above in support of the patentability of claim 1.

**Claims 28, 30-31, 35, 39-40 and 42**

Claims 28, 30-31, 35, 39-40 and 42 are patentable by virtue of their respective dependencies from claims 27, 33 and 38.

**Rejection of claims 29, 34, 41 and 50 under 35 U.S.C. § 103(a) as being unpatentable over Christiansen in view of Tuttle and further in view of Hayashi (US 5,430,582)**

**Claims 29, 34 and 41**

Claims 29, 34 and 41 are patentable by virtue of their respective dependencies from claims 27, 33 and 38.

**Claim 50**

Claim 50 is patentable for reasons similar to those recited above in support of the patentability of claim 1.

## CONCLUSION

In light of the foregoing, claims 1-5, 21-42 and 49-50 are in condition for allowance, which is respectfully requested.

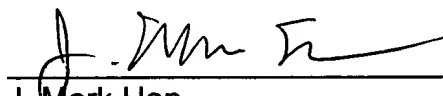
In the event any fees are due as a result of this Amendment, you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

If, after considering this response, the Examiner does not agree that all of the claims are allowable, then he is requested to schedule a phone interview with the Applicant's attorney at (425) 455-5575.

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Respectfully submitted,

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